

## ABSTRACT

A device and method for protection of heating, ventilation, and air conditioning (HVAC) control circuits. The device includes a positive temperature coefficient (PTC) member which is a multi-use, non-bulky, element which will reset after tripping without requiring the user to

5 access the device. The device also includes a pair of connective members to provide the external electrical interface for the device, such that the PTC member is disposed between and in electrical contact with the connective members. Each embodiment also includes a protective member covering portions of the PTC member and connective members chosen or formed sufficient to insulate a user from contact with electrical hazard and sufficient to protect the

10 device from electrical and physical contact which would affect its performance or the performance of the HVAC control circuit to be protected. In alternative embodiments the connective members are configured as either a pair of parallel coplanar blades electrically and mechanically compatible with common blade-type fuse receptacles found in HVAC control circuits, a pair of insulated lead wires of sufficient length to allow a tradesman skilled in the art

15 to splice the circuit protection device into an HVAC control circuit to be protected. In a further alternative embodiment of the present invention, the connective members and the protective member are collectively configured electrically and mechanically compatible with common screw-type fuse receptacles found in HVAC control circuits. The invention also includes three methods for protecting an HVAC control circuit from overcurrents. These methods generally

20 consist of the steps of (1) providing a circuit protection device of the present invention and (2) installing the device in the circuit to be protected in a fashion appropriate to its construction.